PTSD Sleep Therapy Group: Training Your Mind and Body for Better Sleep



Therapist Manual

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Background

Sleep disturbance, one of the most widely reported symptoms after psychological trauma (Kilpatrick, Resnick, & Freedy, 1998), is a hallmark symptom of posttraumatic stress disorder (PTSD). An examination of the course of PTSD symptoms over time revealed the central importance of hyperarousal as a predictor of chronic distress, with hyperarousal being the predominant predictor of all other symptom clusters (Schell, Marshall, & Jaycox, 2004). It has been suggested that treatment efforts focused on reducing hyperarousal, including sleep difficulty, may reduce the chronicity of the disorder.

An independent scientific panel recently convened by the National Institutes of Health determined that many of the drugs now used to treat insomnia have not been approved for this use (National Institutes of Health, 2005). In addition, even those medications that have been approved for insomnia are indicated for shortterm use only. A rigorous review of all available scientific research on the treatment of insomnia led the panel to conclude that cognitive-behavioral therapies (CBT) have demonstrated efficacy in the treatment of insomnia, whereas most medications currently in use have not. In addition, group treatment is recommended as a cost-effective method of delivering CBT for insomnia (Bastien, Morin, Oellet, France, & Bouchard, 2004). Two studies of CBT treatment for insomnia among trauma survivors are available, and although both are uncontrolled, they show promise for CBT group treatment of sleep disturbance in fire evacuees (Krakow et al., 2002) and crime victims (Krakow et al., 2001). However, the panel noted that CBT for insomnia is not widely used because many clinicians are not trained in this approach. No sleep therapy treatment manuals have been developed for a PTSD or veteran population.

Our primary goal is to provide a greater knowledge and understanding of PTSD-related sleep disturbance to veterans and their families. We have developed a CBT treatment protocol for sleep disturbance in PTSD-diagnosed veterans. This treatment is based on CBT treatments shown to work with other populations and includes educational, behavioral, and cognitive strategies (Bastien et al., 2004; Krakow et al., 2001; Krakow et al., 2002; Morin & Espie, 2003; Perlis & Lichstein, 2003). Education focuses on PTSD-related sleep disturbance as a hyperarousal symptom of PTSD and sleep hygiene strategies to eliminate sleep-interfering factors and promote good sleep. Behavioral strategies include stimulus control, relaxation training, and sleep restriction. Cognitive strategies target anxiety-producing beliefs about sleep. A second goal is to increase clinician awareness

and use of CBT for insomnia by providing a manualized group treatment format specifically designed for use with PTSD-diagnosed veterans.

Session 1

Introduction to PTSD Sleep Therapy Group

Materials

Assessment materials (e.g., PCL-M, Insomnia Severity Index, Pittsburgh Sleep Quality Index) National Center for PTSD handout, "Sleep and PTSD" Calm Breathing CD Patient Manual

<u>Overview</u>

- A. Conduct paper-and-pencil assessment
- B. Describe Session 1 goals
- C. Introduce group members and leaders
- D. Provide education about PTSD-related sleep disturbance
- E. Provide rationale for cognitive-behavioral intervention for PTSD-related insomnia
- F. Teach calm breathing

A. Conduct paper-and-pencil assessment

Hand out and have patients complete desired assessment instruments.

B. Introduce group members, leaders, and purpose

- 1) Briefly introduce yourself. Ask group members to describe their sleep problems and what they hope to gain from the group. Use some of the following questions to help group members begin to assess their own sleep patterns:
- ✓ What was your sleep like before your war-zone service?
- ✓ Currently, how long are you in bed before you fall asleep?
- ✓ Once you fall asleep, how long do you stay asleep?
- ✓ How many times during the night do you wake up?

- ✓ Do you feel rested in the morning?
- ✓ Do you take naps during the day?
- ✓ Do medical conditions contribute to your sleep problems (for example, sleep apnea, sleep movement disorders, chronic pain, prostate problems)?
- 2) Explain that when sleep is fragmented or broken, people do not feel as rested or get into as deep a stage of sleep as when it is all in one block.
- 3) State the purpose of PTSD Sleep Therapy Group:
- ✓ Education about sleep disturbance as part of PTSD hyperarousal
- ✓ Use of sleep hygiene and cognitive-behavioral therapy (CBT) strategies to improve sleep quality
- ✓ Changing habits and thoughts to improve sleep quality

C. Provide education about PTSD-related sleep disturbance

- 1) Let patient know that while many people with PTSD have sleep problems, such problems can also be caused or worsened by a variety of medical conditions (sleep apnea, sleep movement disorders, chronic pain, prostate problems). Encourage patients to talk to their medical provider about their sleep problems to rule out any medical conditions that may be interfering with sleep.
- 2) Acknowledge that most PTSD patients have had insomnia for many years and may have tried many different strategies and medications to improve their sleep. Treatment may have included prescribed medications, OTC medications, behavioral strategies. Ask patients to describe any methods or medications they have tried to improve their sleep.
- 3) Describe limitations of sleep medications. Although some sleep medications are helpful to some patients, medications are limited. Many medications that are prescribed for sleep are not intended for insomnia. Even those medications that have been approved for insomnia are approved for short-term use in most cases. In addition, any medication has potential side-effects. Given these limitations, it is important to learn and practice good sleep habits even if medications are currently working well for an individual.
- 4) Respond to other strategies that patients mention and explain that while well-intentioned, some of these strategies may unwittingly contribute to insomnia (e.g., staying in bed longer, napping during the day, drinking a "nightcap"). In

addition, long-term use of sleep medication can lead to dependence and further difficulties with insomnia.

- 5) Explain that PTSD symptoms contribute to sleep disturbance. Describe PTSD-related hyperarousal and impact on sleep.
- It is not uncommon for people who have been through a traumatic experience to have difficulty sleeping. Surviving a psychological trauma can leave one feeling watchful and on guard, and this can make sleep difficult.
- Sleep problems are one of the main complaints of people with PTSD. Hyperarousal, a state of high physical alertness, is a part of PTSD that interferes with people's lives. Sleep problems in PTSD are part of this high level of alertness. Reducing hyperarousal and returning your body to a lower state of alertness can be helpful in reducing and managing stress and helping to improve sleep.
- The reliving aspect of PTSD also interferes with sleep. Often reexperiencing symptoms are more prevalent at night, particularly if traumatic experiences occurred at night. Nightmares, a type of reexperiencing symptom, can interfere with sleep by waking you up and making it hard to return to a relaxed state. Upsetting thoughts or memories may come more frequently at night. Sometimes sleep or bed has a negative connotation and the bedroom becomes a trigger.

D. Provide rationale for cognitive-behavioral intervention for PTSD-related insomnia

- 1) Inform veteran that CBT is a structured, evidence-based therapeutic approach. Research indicates that cognitive-behavioral methods can be effective in treating insomnia. NIH recommends CBT treatment as a first line intervention for sleep disturbance. Even though patients may have had sleep problems for years, they may be able to make substantial improvements to their sleep quality by changing sleep-related thoughts and habits.
- 2) Explain that most people serving in a war-zone have to change their sleep habits and beliefs in order to meet the demands of the job. Readjusting sleep habits and beliefs after war-zone service can restore sleep quality.

- 3) Sometimes psychological trauma occurs in the bed or is associated with bed activities. For example, war-zone personnel might experience mortar attacks while in bed, and sexual assault or domestic violence may occur in the bedroom. Working to reestablish a positive connection with the bed may be helpful to sleep disturbance.
- 3) Note that when sleep disturbance has been present for a long time, people develop habits or strategies that, while intended to help sleep, end up getting in the way. Similarly, people develop beliefs about their sleep that may not be helpful. A primary purpose of the Sleep Therapy Group is to help examine and change thoughts and habits that might be making it harder to get a good night's sleep.

E. Teach calm breathing

1) Provide a rationale for calm breathing as follows (cf, Foa, 1998).

Breathing affects the way we feel. If we are anxious or frightened, we breathe faster to fuel our bodies for action. If we are relaxed, we slow down our breathing. We can feel more relaxed and less anxious by slowing down our breathing and focusing on the breath out. The breath out, or the exhalation, is associated with relaxation. This exercise does two things. It helps you to slow down your breathing, and it helps you to focus on the breath out. So we will be taking a normal breath in through the nose, and a long breath out through the nose. Then, we will pause for a count of four. In addition, when we breathe out, we will say a word to ourselves that we find relaxing. I will use the word "calm", but you may choose any word you like, such as "relax", or "peace." You will say this word silently to yourself as you breathe out. I will lead you through about 10 cycles of the calm breathing exercise, and then I will give you a few minutes to practice on your own.

2) Start by having participants get into a relaxed position in their chair, putting down anything in their hands, and uncrossing their hands and legs. Have them close their eyes (if they feel comfortable doing so) or leave their eyes open and focus on a spot on the floor in front of them. Lead group members through 10 cycles of calm breathing, breathing in and out of nose.

Normal breath in, long breath out, "c-a-a-a-a-l-m". Pause, two, three, four. Normal breath in, long breath out, "c-a-a-a-a-l-m".

3) An option is to add holding the breath for a count of 5 after the inhalation. This will increase the blood levels of carbon dioxide which has a sedating effect. Encourage patient to try this exercise different ways to find the one that works best for them.

Goal Assignment

- Assign Session 1 goal assignment:
- 1) Practice calm breathing 5 minutes per day while awake.
- 2) Practice calm breathing while lying in bed at night in preparation for sleep.
- 3) Read handouts and share with bed partner/ significant other.
 - Ask patients to complete Session 1 **Contracting for Change** and to note problems encountered with goal assignment over the next week on **Removing Roadblocks**.

Session 2

Relaxation and Bedtime Wind-Down

Materials

Patient Manual Relaxation CD

Overview

- A. Goal assignment review
- B. Describe Session 2 goals
- C. Relaxation therapy
- D. Train your brain for sleep: Put the day to rest
- E. Train your brain for sleep: Bedtime wind-down
- F. Progressive muscle relaxation practice

A. Goal Assignment Review

Review Session 1 goal assignment. Assist patient in identifying barriers or roadblocks and problem-solve to overcome these.

1) Did you practice calm breathing during the day? ...at night while preparing for sleep? Was it helpful? Did you encounter any difficulties or roadblocks?2) Did you review the handouts? ...share them with your partner? Any questions?

Encourage patients to continue to practice these strategies even if they have not yet seen results. Remind them that change requires repeated practice of new behaviors.

B. Session 2 Goals

Explain the goals of the current session.

In today's session we will learn about the importance of relaxation in helping sleep; learn a way to deactivate your mind at night; plan a bed-time wind-down; practice relaxation training in session.

C. Relaxation Therapy: Train Your Body for Sleep

- 1) Explain to patients that signs of continuing physiological activation are common following participation in a war or exposure to other psychologically traumatic experience.
- 2) Provide rationale for relaxation training. Inform patients that insomnia results from physiological and emotional overarousal. Difficulty becoming physically and/ or mentally relaxed can lead to trouble with sleep. Sleep problems in PTSD are part of the bigger picture, hyperarousal. In order to sleep, people must be able to relax and reduce hyperarousal. Relaxation training can reduce physiological and mental overarousal and facilitate sleep. Tell veterans that while we cannot force ourselves to sleep, we can set the stage for a good night's sleep. Reducing hyperarousal by learning to relax and let go of tension can facilitate sleep.
- 3) Emphasize the importance of practice. Inform members that like any training program, learning to relax is a process that takes time and practice. Just as veterans spent many months training and preparing for deployment and learning to be in a state of high alertness, it will take training and practice to change this. The more relaxation training is practiced, the more useful it will be in improving sleep.
- 4) Discuss making relaxation practice a priority. Ask veterans if they will be able to set aside 10-20 minutes during the day to practice some form of relaxation training (CD will be provided with several types of relaxation activities). If veteran expresses uncertainty, ask them if they can set aside 5 minutes a day to start. Encourage group members to make relaxation practice a priority. Draw a parallel between military training and preparation with readjustment training now. Note that just as their military training was a priority for them when they were training for deployment/ war, relaxation training is a priority for their life now.
- 5) Instruct patients to practice relaxation when they are awake and alert so they can learn what it feels like to be in a relaxed state. Practice should occur at times when they are already mostly relaxed. Location of practice is important,

especially initially. Encourage patients to practice in a quiet room with no disruptions while not engaging in other activities. In addition to practicing while awake, patients can practice in the evening near bedtime, as this will help prepare the body and mind for sleep.

D. Train Your Brain for Sleep: Put the Day to Rest

Assess which group members suffer from mental overarousal at bedtime.

Do you tend to lie in bed with thoughts running through your mind? Do you feel like you can't turn off your mind and that your thoughts keep you awake at night? Often people with sleep problems cannot "turn off their minds" when they get into bed and as a result have trouble falling asleep. Don't try to solve your problems in bed.

Group members who have mental overarousal at bedtime should implement the "Day to Rest" technique.

- ✓ Early in the evening, think about your day.
- ✓ Write down in a notebook any concerns or worries from the day.
- ✓ Anticipate what might come to mind in bed tonight and write it down.
- ✓ Write a "to-do" list for tomorrow.
- ✓ Use this time to feel more organized; close the notebook when you are finished.
- ✓ At bedtime remind yourself that you have already dealt with worries and concerns.
- ✓ If new thoughts come up, leave the bedroom and write them in the notebook.
- ✓ Let yourself focus on positive thoughts and memories in bed.

E. Train Your Brain to Sleep: Bedtime Wind-Down

Instruct participants to use a Bedtime Wind-Down to get into the habit of relaxing and preparing for sleep.

It is important to get your body into the habit of sleep. Our brains are creatures of habit and respond to signals and cues that we aren't even aware of. One signal you can use to increase the likelihood of sleep is a set of activities that you do at the same time and in the same way every night. Using the same relaxing

routine every night in the hour before bedtime will get your brain into a habit of expecting sleep to follow. Be sure to choose activities that are relaxing and calming, and avoid those that are energizing or thought-provoking.

Refer to Bed-Time Wind-Down examples below and in Patient Manual.

- -Practice calm breathing or other relaxation exercise
- -Listen to relaxing music
- -Do some light reading
- -Take a warm (not hot) bath or shower
- -Meditate or pray

F. Progressive muscle relaxation practice

End session with progressive muscle relaxation (PMR) practice. Elicit from patients specifics about how and when they will practice at home. Hand out relaxation CD or other relaxation practice resource (e.g., http://www.shuteye.com/insomnia-treatment/relaxation-techniques.aspx), although emphasize that it is important to eventually practice without the CD.

Goal assignment

- Assign Session 2 goal assignment:
- 1) Continue calm breathing both during day (5 minute practice) and at night while lying in bed.
- 2) Set aside 15 minutes during the day to practice PMR (or another form of relaxation training).
- 3) Practice putting the day to rest every night, seven nights per week.
- 4) Practice bedtime wind-down every night, seven nights per week.
 - Ask patients to complete Session 2 Contracting for Change and to note problems encountered with goal assignment over the next week on Removing Roadblocks.

Session 3

Mind-Body Habits for Good Sleep

Materials

Patient Manual

Overview

- A. Goal assignment review
- B. Describe session 3 goals
- C. Lifestyle Factors that Can Interfere with Sleep
- D. Environmental Factors that Can Interfere with Sleep

A. Goal Assignment Review

Review Session 2 goal assignment. Assist patient in identifying barriers or roadblocks and problem-solve to overcome these. Common barriers to relaxation practice are lack of time, boredom, anxiety. Reiterate the rationale for relaxation practice in sleep therapy and encourage patients to make a renewed effort this week, even if practice is for only a few minutes each day.

- 1) Did you practice calm breathing during the day? ...at night while preparing for sleep? Was it helpful? Did you encounter any difficulties or roadblocks?
- 2) Did you practice PMR over the last week? Was it helpful? Did you encounter any difficulties or roadblocks?
- 3) Did you use the Day to Rest technique? Was it helpful? Did you encounter any difficulties or roadblocks?
- 4) Did you use a Bedtime Wind-Down? Was it helpful? Did you encounter any difficulties or roadblocks?

B. Session 3 Goals

Explain the goals of the current session.

In today's session we will identify <u>lifestyle</u> and <u>environmental</u> factors that interfere with sleep and plan to change lifestyle and environmental factors in order to improve sleep quality.

C. Lifestyle Factors that Can Interfere with Sleep

Inform veterans that it is important to know about lifestyle factors that can interfere with sleep. Ask veterans whether they engage in these behaviors, educate them about the impact of these behaviors on sleep, and ask them how they can make sure they are not working against their goal of improving sleep quality.

Caffeine

- Caffeine is a drug that can interfere with our ability to get a good night's sleep because it is a stimulant. Stimulants elevate heart rate and blood pressure and can make us feel more alert, potentially adding to PTSD-related hyperarousal and disrupting sleep.
- Our body can get used to having caffeine so that we can need more and more over time in order to get the same effect. For example, whereas one cup of coffee was all you needed to wake you up in the morning when you first started drinking it, now you may need 3 or 4 cups.
- In which substances can caffeine be found besides coffee? <Be sure to include
 hot tea, iced tea, many soft drinks, energy drinks, chocolate, and some pain
 medications. >
- The most common withdrawal symptom from caffeine is headache and usually lasts 24 hours.
- Experts in sleep disorders recommend <u>total elimination</u> of caffeine from the diet.
- If you cannot eliminate caffeine, restrict your intake to 1-2 caffeinated beverages a day before 12 noon.

Nicotine

- Nicotine is another drug that can interfere with sleep. As a stimulant, it
 increases heart rate, blood pressure, breathing rate, and makes you feel more
 alert.
- Nicotine can lead to tolerance so that you need more to get the same effect.
- In which substances can nicotine be found? <Be sure to include cigarettes, cigars, chewing tobacco, and other tobacco products.>
- Serious physical health consequences are associated with nicotine use.

- Smokers sleep more poorly than non-smokers due to stimulant effects of nicotine, nicotine withdrawal during sleep, and irritated respiratory system.
- Many people think that smoking cigarettes is relaxing, but the nicotine in cigarettes actually makes it very stimulating and will work against you in your efforts to sleep. The relaxing part of smoking is the habit that is involved, and the key to quitting is to develop new habits.
- Nicotine withdrawal symptoms include restlessness, irritability, anxiety, and headaches and usually last 10 days.
- Nicotine use leads to chemical dependence, and quitting smoking can be difficult. The VA provides a smoking cessation program. How many people here smoke? Are you interested in quitting? If so, we can make a referral for you to the smoking cessation program.
- Quitting smoking will be helpful to your sleep and your health in the long run. However, in the short run there may be some impact on sleep from nicotine withdrawal.
- If you are not ready to quit smoking completely, cut down on nicotine at night.
 - Avoid nicotine within 2 hours of bedtime.
 - Do not use nicotine if you get up during the night.

Alcohol

- Alcohol can be sedating. It is not uncommon for people with PTSD to turn to alcohol to calm down, often in an attempt to self-medicate their hyperarousal in order to relax or go to sleep.
- Like caffeine and nicotine, alcohol is also a drug that can lead to tolerance so that people need more and more to get the same effect.
- While alcohol may make you feel more relaxed initially and may even help you to fall asleep at the beginning of the night, it will increase the number of times you awaken throughout the night. Part of why people with a hangover feel badly is due to sleep disruption.
- Alcohol use is associated with increased dreaming and nightmares.
- Even a small amount of alcohol as much as 6 hours before bedtime can increase wakefulness during the night.
- For people with past heavy alcohol use, even after years of abstinence, sleep patterns may never completely return to normal.
- Eliminate alcohol use if possible.
- Otherwise, limit alcohol use by not drinking after dinner.
- Never use alcohol as a sleep aid. It only makes the problem worse.

Never mix alcohol with other medications, especially sleeping pills.

Diet

- It is important to manage your diet, as having a large meal in the evening can make it harder to sleep at night.
- Try eating a smaller meal early in the evening.
- Avoid heavy, spicy, or high-sugar foods as these can interfere with sleep.
- Foods that are rich in tryptophan (turkey, chicken, dairy products), and carbohydrates such as bread or crackers might help you to relax.
- Reduce fluids after 7 pm so you are not awakened by the need to urinate.

Exercise

- Exercise is good for sleep because it increases your metabolism, making your body perform more efficiently and increasing the need to sleep.
- Try to set up a regular exercise routine that you do in the morning or early afternoon (get your doctor's permission first). While exercise 2-3 hours before bedtime might make it harder to sleep, exercise earlier in the day may help you fall asleep more quickly and stay longer in a deep stage of sleep.
- Engage in thirty minutes of a moderate exercise routine everyday early in the day.
- Exercise helps reduce the risk of developing many health problems and appears to reduce symptoms of depression and anxiety.

B. Environmental Factors that Can Interfere with Sleep

Ask veterans to evaluate their bedroom environment to make sure it is as conducive to sleep as possible.

Noise

- Bedroom noise level is a factor in sleep hygiene. Some people like a steady background noise to mask outside noises that might wake them up. Other people sleep better in a room that is quiet. Evaluate your sleep preference and make changes to your environment as needed.
- If you like background noise, try using the radio low and tuned in between stations, or try a fan or a "white noise" machine. Don't use the TV for this purpose. Watching TV is a wakeful activity and should not be done in the bedroom.
- You may need to talk to your partner about this, as people without sleep problems are not bothered by a TV in their room.

Lighting

- Be sure to get exposure to sunlight each day, including early evening. This helps to regulate your biological clock.
- Keep bedroom lighting low. When you walk into your bedroom at night, use a small lamp or other low lighting rather than a bright overhead light. This is in keeping with our general strategy to make the bedroom soothing and associated with relaxation and sleep.

Room Temperature

• Most people sleep better in a room that is slightly cool rather than too warm. A room that is too hot leads to more awake time and light sleep.

Air Quality

- Improve air quality in your bedroom by making sure it is well-ventilated.
- If the room is too stuffy, it will be harder to sleep.

Bed Comfort

- Make sure your mattress and pillows are comfortable.
- Try to replace a mattress after 10 years with the highest quality you can afford.
- Sleep with pajamas or comfortable clothes that are different from your
 daytime clothes. In a war-zone you may have slept in clothes to be ready for
 action at any moment. At home, changing into pajamas is another way you
 can prepare your mind and body for relaxation and sleep.

Partner Support

 Making changes to your bedroom will require your partner's understanding and support.

Goal Assignment

- Assign Session 3 goal assignment:
- 1) Continue calm breathing both during day (5-min practice) and at night while lying in bed.
- 2) Practice PMR once a day while awake for 15 minutes.
- 3) Use putting the day to rest technique if needed.
- 4) Continue to use bedtime wind-down every night.
- 5) Commit to changing at least two lifestyle or environmental factors.

• Ask patients to complete Session 3 **Contracting for Change** and to note problems encountered with goal assignment over the next week on **Removing Roadblocks**.

Session 4

Reclaim Your Bedroom for Sleep

Materials

Patient Manual

Overview

- A. Goal assignment review
- B. Describe Session 4 goals
- C. Stimulus Control: Making the Bed=Sleep Connection
- D. Review Activities Associated with Wakefulness
- E. Follow the 15-Minute Rule

A. Goal Assignment Review

Review Session 3 goal assignment. Assist patients in identifying barriers or roadblocks and problem-solve, provide clarification, or reiterate rationale as needed.

- 1) Did you practice calm breathing and PMR over the last week? Was it helpful? Did you encounter any difficulties or roadblocks? Assist patients in identifying barriers to practice (e.g., lack of time, boredom, anxiety).
- 2) Did you use the Day to Rest technique? Was it helpful? Did you encounter any difficulties or roadblocks?
- 3) Did you use a Bedtime Wind-Down? Was it helpful? Did you encounter any difficulties or roadblocks?
- 4) What two lifestyle or bedroom factors did you change? Was it helpful? Did you encounter any difficulties or roadblocks?

B. Session 4 Goals

Explain the goals of the current session.

In today's session we will learn the importance of reserving the bedroom for sleep and sex only; learn which activities are ok for the bedroom and which ones are better done in another room; talk about the impact of keeping weapons in the bedroom; and learn and plan to practice the 15-minute rule.

C. Stimulus Control: Making the BED = SLEEP Connection

Discuss how sleep patterns have changed over the years, including before and after war-zone or trauma exposure.

How many people had sleep difficulties prior to war-zone service or going through a trauma? If you did not have problems with sleep, then it is likely that a strong connection existed in your mind between BED and SLEEP. For people who were in a war-zone, or after other traumatic experiences, sleep can take on a different meaning. It may be that sleep was no longer a time for relaxation. What did sleep mean for you during deployment (or after your traumatic experience)? After returning from deployment, sleep continued to have a different meaning and it most likely impacted how you view 'going to bed.' What does your bedroom mean now? If getting into bed makes you feel anxious, worried or frustrated, these are emotions that are completely opposite from relaxation and sleep. Thus, if you are experiencing any of these feelings while you are in bed, sleep will not come easily to you. Additionally, we tend to get into habits or behaviors that also work against the BED = SLEEP connection. Name some other activities that you might engage in other than sleep in the bedroom.

As group members are providing examples, you may want to write their responses on the board:

Pre-Deployment: BED = SLEEP

During War-Zone: BED = Danger, vulnerability, fitful, light or brief sleep

Post-Deployment: BED = Fear, frustration, anxiety, nightmares

Non-sleep activities in the bedroom:

Watch TV

Argue or have difficult discussions with my significant other Read

Eat

Use the computer

Pay bills, balance the checkbook

Watch the clock

Be on guard duty (listening for sounds of danger, positioning bed to face door, booby traps, keeping a weapon in the bedroom)

Your bedroom should have a strong association for you with going to sleep. When you walk into your bedroom, your body and brain should automatically associate getting into bed with group to sleep. Think of other associations you have (elicit examples). This is how strong the BED = SLEEP association should be. Using the bedroom for activities other than sleep will weaken this connection and make it harder for you to sleep. If you do non-sleep activities in your bedroom, then you start thinking about those activities when you are in bed. For example, if you watch TV while you are in bed, you start thinking about what you have seen on TV while you are in bed. If you have a weapon in your bedroom, you start thinking about being on guard and danger rather than feeling relaxed and sleepy.

D. Review Activities Associated with Wakefulness

In order to cope with being awake during the night, many individuals with chronic sleep problems engage in behaviors in the bedroom which actually contribute to insomnia. It is important to use the bedroom for sleep (and sex) only. Avoid engaging in any wakeful activities in the bedroom.

Review examples of wakeful activities listed above and tell participants these are all activities that should be done in another room. In addition, note the following:

- Watching the clock is a wakeful activity. Consider facing it away from your bed
- Avoid sleeping in any other room (i.e. in your recliner in front of the TV)
- Remove items in your bedroom that increase arousal (i.e. weapons)
- Weapons must be removed from the bedroom. Being on "guard duty" requires wakefulness and alertness and is not compatible with sleep.
- Resist the urge to get up and check every little noise stay in bed instead.
- Avoid daytime napping. Even a brief nap during the day can take away from your ability to sleep at night and weaken the connection between sleep and bed.

E. Follow the 15-Minute Rule

Often, an individual will stay in bed when unable to sleep with the rationale that "at least I am resting" or "if I am in bed long enough I will eventually get enough sleep." However, this thought actually **PROMOTES** insomnia. Provide the following instructions for the 15-minute rule.

- Lie down in bed only when sleepy: remain awake and out of bed until you feel drowsy.
- If you go to bed only when you are sleepy, you are more likely to fall asleep, and this strengthens the connection with BED and SLEEP.
- If you are not asleep within 15 minutes of lying down, get up out of bed and go to another room. Do something relaxing, and go back to bed when you're feeling sleepy. Continue to get up if you're not asleep after 15 minutes, even if you awaken in the middle of night. Spending too much time awake in bed promotes insomnia.
- Similarly, if you awaken in the middle of the night and do not return to sleep within 15 minutes, follow the above procedure.
- Repeat the previous step as often as necessary throughout the night.
- Don't watch the clock for the 15-minute rule just estimate. Remember that watching the clock is a wakeful activity.
- Before you go to sleep, plan where you will go and what you will do if you
 wake up during the night. For example, set us a chair in another room with
 your relaxation tape or reading material so if you need to get up during the
 night it will be ready for you.
- Practice this 7 nights per week, no exceptions.

Acknowledge that following the 15-minute rule might be frustrating at first and veteran may have to get up several times a night. However, it will be easier to fall asleep over the next several nights as sleep deprivation increases. Typically, this takes one to two weeks.

Encourage participants to continue to practice these strategies even if they think it is not working. Remind them that retraining the brain to get a better quality sleep requires consistent, nightly, ongoing practice over a period of time.

Goal Assignment

• Assign Session 4 goal assignment:

- 1) Continue calm breathing both during day (5-min practice) and at night while lying in bed. 2) Practice PMR once a day while awake for 15 minutes. 3) Use Bedtime Wind-Down and Putting the Day to Rest. 4) Monitor and change lifestyle and environmental factors. 5) Sleep only in bedroom and use the bedroom for sleep only. 6) Follow 15-minute rule.
 - Ask patients to complete Session 4 **Contracting for Change** and to note problems encountered with goal assignment over the next week on **Removing Roadblocks**.

Session 5

Sleep Smarter

Materials:

Patient Manual

Overview:

- A. Goal assignment review
- B. Describe Session 5 goals
- C. Sleep Smarter: Watch your thoughts and beliefs about sleep
- D. How to get a better quality sleep: Sleep smarter by scheduling your sleep

A. Homework Goal Assignment Review

- 1) Did you sleep in your bedroom only? Was it helpful? Did you encounter any difficulties or roadblocks?
- 2) Did you use the 15-minute rule? Was it helpful? Did you encounter any difficulties or roadblocks?
- 3) What other strategies have you continued to use (calm breathing, PMR, day to rest, bedtime wind-down, changing lifestyle/ environmental factors)?

B. Session 5 Goals

Make a plan to consolidate sleep into one block of time; learn about impact of thoughts and emotions on sleep.

C. Sleep Smarter: Watch your thoughts and beliefs about sleep

Sleep Quiz

Start session by having patients complete the "Sleep Quiz" (in Patient Manual).

After they have had a chance to complete the Sleep Quiz, ask them about their answers and discuss specific questions as needed.

How many questions are marked "Yes"? Answers to questions 1-10 are ideally all "No." If you have answered "Yes" to any of these, you may want to work toward changing some of your behaviors or sleep habits as these can get in the way of a good night's sleep.

How many questions are marked "True" (questions 11-20)? The answer to all of these are typically "False". These questions reflect beliefs and attitudes about sleep that may be impacting your ability to sleep well. Many of our beliefs about sleep may be unhelpful and may add to the trouble we have in getting a good night's sleep.

<u>Dysfunctional cognitions</u>: Pick several of the statements from the Sleep Quiz to identify and challenge unhelpful ways of thinking about sleep.

How beliefs about sleep add to sleep problems

Ш	I need to sleep 8 hours all the way through in order to feel refreshed."
	Keep your expectations realistic: Not everyone needs 8 hours. There are
	individual differences in sleep needs; short sleep is not always abnormal.
	"I'm having trouble sleeping because I've lost my mind." Why do you
	think you are having trouble sleeping? Examine your thoughts about this
	to be sure you are not causing yourself extra worry or stress.
	"When people feel irritable, depressed, or anxious during the day, it is
	because they slept poorly the night before." Don't blame all daytime
	problems on sleeplessness.
	"Unless I can find a way to sleep more, there is no way to enjoy life or be
	productive." Don't think the worst after a poor night's sleep: Worries and
	fears about sleep problems can increase sleep difficulties. You have
	evidence from your own experiences that you can function and enjoy
	things even on a very small amount of sleep.
	"If I do not sleep well at night, I cannot possibly function well the
	following day." Don't give too much importance to sleep. Don't change
	your activities based on sleep. Develop a tolerance to effects of sleep loss:
	Go on with activities even after a poor night's sleep. Do something
	pleasurable to disconfirm the belief that a good night's sleep is essential.
	"When I have trouble sleeping, I just try harder to sleep." Never try to
	sleep: Sleep can't be achieved on command. Trying too hard often

backfires because trying is effortful, engages and alerts the brain, and is not relaxing. All you can do is create favorable circumstances, setting the stage and letting sleep come.

"When people get overwhelmed by thoughts at night, there is no way to control the racing mind." This may be especially pertinent to people with PTSD who often feel that they must be more alert and on guard for danger at night. This may stem from war experiences in which nighttime was the most dangerous time. For many people with PTSD it is important to talk about these traumatic experiences with a therapist to connect the feelings with the event that happened long ago. To help yourself make a distinction between then and now, pay at least as much attention to signs of safety at night: for example, never having been broken into at night; noises outside pass with no resulting danger.

D. How to get a better quality sleep: Sleep smarter by scheduling your sleep

Have patients develop their own sleep plan using the following guidelines:

Sleep that is broken (a few hours here and a few hours there) is not as refreshing as the same amount of sleep all in one block of time.
Consolidating your sleep into one block of time will help you get a better quality sleep.
Think about how much total sleep time you get now on average (add up
the separate blocks of sleep you get on a typical night).
• I get about hours of sleep.
This is your average sleep time, and you will spend no more time in bed
than your average sleep time. *If your average sleep time is less than 5
hours, use 5 hours.
Decide on a set rising time and put that into practice daily. A set rising
time acts like an anchor to help you settle into more of a pattern of sleep.
Set an alarm clock and get up at the same time every morning regardless
of how little you slept during the night. This helps you develop a
of now fittle you slept during the hight. This helps you develop a

• I will get out of bed at ____a.m.

Consolidate your sleep. Decide on a time for getting	g into bed by
subtracting sleep time from rising time. For example	e, if you need to get

up by 6 a.m., and you get a total of 5 hours of sleep per night, do not get into bed until 1 a.m. Going to bed early to catch up on sleep, later to feel more tired, or just because it is bedtime is not a good strategy for falling sleep quickly or easily.

 The earliest I will go to bed is ____p.m., but only if I am sleepy by that time.

Get into bed only when sleepy (lack of energy, aching muscles,
yawning). Don't go to bed until you are sleepy after your bedtime.
Build on your success: Once the broken sleep has been consolidated (90%
of your time in bed is spent sleeping), add time in bed by 15 minutes per
night for one week.
Follow this program 7 nights per week.

Ask group members to share their individualized sleep plans. Address questions or concerns.

Goal assignment: 1) Continue calm breathing, PMR, bedtime wind-down, 15-minute rule, good lifestyle/environmental factors, BED=SLEEP connection; 2) watch your thoughts about sleep; 3) follow your sleep plan.

Ask patients to complete Session 5 **Contracting for Change** and to note problems encountered with goal assignment over the next week on **Removing Roadblocks**.

Session 6

Coping with Nightmares

Materials:

National Center for PTSD Fact Sheet: Nightmares Assessment materials (e.g., PCL-M, Insomnia Severity Index, Pittsburgh Sleep Quality Index) Patient Manual

Overview:

- A. Goal Assignment Review
- B. Describe Session 6 goals
- C. How are nightmares related to PTSD?
- D. Grounding
- E. Imagery rehearsal for recurrent nightmares

A. Homework Goal Assignment Review

- 1) Did you follow your sleep plan? Was it helpful? Did you encounter any difficulties or roadblocks?
- 2) Did you sleep only in your bedroom during one block of time? Was it helpful? Did you encounter any difficulties or roadblocks?
- 3) What other strategies have you continued to use (calm breathing, PMR, day to rest, bedtime wind-down, lifestyle/ bedroom factors, 15-minute rule)?

B. Session 6 Goals

Learn about nightmares as part of PTSD.

Learn several coping strategies for nightmares.

C. How are nightmares related to PTSD?

Nightmares are part of PTSD re-experiencing symptoms. Sometimes they
are a replay of past traumatic experiences, and sometimes they have
elements that are similar to past traumatic experiences.
Nightmares can be part of a habit and can be controlled.
Nightmares may be a sign that you could benefit from processing your
traumatic experiences: Talk to your PTSD provider about this.
Improving your sleep habits may reduce the occurrence of nightmares.

D. Grounding

If you are awakened by a nightmare in the middle of the night:

- Use grounding techniques to re-orient yourself and stop the pull to the past
- Grounding is an anchor to the present
- Sit up on the side of your bed, feet on floor
- Focus on your surroundings by naming objects in your room
- Keep a calendar with the year on it so you can use this as an anchor
- Use soothing self-talk: "I am in my bedroom. The year is 2009. I am safe."
- If you can't fall back to sleep within 15 minutes, leave your bedroom, do something relaxing, and return to bed when sleepy

Grounding Your Senses

If you are confused, scared, or have problems returning to sleep following a bad dream, grounding can help with these problems. Sometimes, using your senses can be helpful:

Taste: Put something in your mouth that has a strong flavor (e.g., two Altoids mints). Try keeping them next to your bed in case you wake up in the night. Sugar can also help if you have problems with shaking or trembling after waking.

Touch: Putting an ice cube or two in your hand can help you quickly return your thoughts to the moment. Try to notice the cold, wet sensation. Hold onto the ice as long as necessary. Repeat if needed.

Smell: Keep a closed container near your bed that holds a strong scent, such as cloves, basil, or coffee beans. You can choose something that brings up good feelings/memories or just a smell that is refreshing for you.

Sound: Use non-upsetting sounds to return you to the moment. Before bedtime, make sure that a music source is close to your bed. This can be an alarm clock, a bell, or stereo set to pre-chosen music and volume. Choose music and volume that will ground you to the present, rather than stir up thoughts about the past.

Also try combining two or three grounding techniques at once (e.g., playing music while holding an ice cube).

Remember how grounding works: It is hard for to think about a nightmare or past memory, when you are actively engaged in the here and now.

E. Imagery rehearsal for recurrent nightmares

Sometimes when people have the same nightmare over and over again,
they can stop the nightmare by using "imagery rehearsal".
Imagery rehearsal involves selecting a recurrent nightmare and thinking
of a way to change one thing about the nightmare. Change it any way you
wish.
Practice rehearsal of the changed nightmare by visualizing the entire
dream with the change before practicing relaxation each night before
going to bed.
Attend Nightmare Treatment Group: Ask your PTSD treatment provider.

F. Planning for the Future

- What gains you have made?
- What do you attribute these gains to?
- What is still difficult?
- What are possible barriers to improving my sleep?

- What are possible solutions to these barriers?
- What will I do if I start having problems sleeping again?

Thank group members for their participation. Encourage continued diligence and practice of sleep therapy techniques, even if they have not noticed a change, reminding veterans that when sleep patterns become established over years, sustained practice is required to change these patterns.

While a booster session is not always possible, if it is, invite participants to return in 4-6 weeks.

A booster session allows follow-up assessment of sleep quality, review of strategies, and encouragement of continued or renewed practice.

Booster Session Consolidating Gains

Materials:

Assessment materials (e.g., PCL-M, Insomnia Severity Index, Pittsburgh Sleep Quality Index) Patient Manual

Booster Session Goals

Follow-up assessment of sleep quality; review of treatment strategies; and encouragement of continued or renewed practice.

- Hand out and have patients complete PSQI and PCL-M.
- Ask patients how they have been doing with sleep therapy strategies. Ask about their perceived sleep quality.
- Provide handout and review concepts as follows. For each area, ask group members how many are using these strategies. Discuss any difficulties or roadblocks they have encountered. Encourage group members to continue or reinitiate use of these strategies.

Breathe

Calm breathing is a method of reducing hyperarousal, the source of PTSD-related sleep disturbance. Calm breathing involves slowing down the breathing by pausing between breaths, and focusing on the breath out. You are encouraged to practice calm breathing during the day and at night as you are lying in bed preparing for sleep.

Relax

Relaxation training is another method of reducing PTSD-related hyperarousal. We practiced progressive muscle relaxation in this group, and you have a CD with that exercise as well as other relaxation exercises. Insomnia results from physiological overarousal, and relaxation training can reduce physical and mental arousal, helping to set the stage for a better night's sleep.

Use a Routine

Practicing putting the day to rest, taking time early in the evening to write down your thoughts and worries of the day, can help you to "turn off your mind" as you lie in bed preparing for sleep. Using a bedtime wind-down, or having a relaxing routine in the hour or two before bedtime, can get your mind and body into the habit of preparing for sleep.

Prepare Your Body and Mind

Practice a healthy lifestyle by eliminating caffeine, nicotine, and alcohol. Monitor diet and exercise and make changes to your bedroom in order to optimize your bedroom environment (noise, bed comfort, temperature, lighting, air quality).

Make the Connection

Find ways to make the connection in your mind between BED and SLEEP. Sleep only in bedroom; use the bedroom for sleep only. Engage in wakeful activities in another room. Avoid napping during the day, as this takes away from your ability to sleep at night.

Get Up

Follow the 15-minute rule: if you are not asleep within 15 minutes, get up out of bed, do something relaxing, and return to bed when sleepy.

Limit Time in Bed

Wake up at the same time every morning and restrict time spent in bed. Don't spend a lot more time in bed than time that you are actually asleep.

Think About It

Examine your beliefs about sleep. Some ways of thinking about sleep, such as worrying about the health consequences of sleep or giving too much importance to sleep can increase insomnia.

Use Grounding

Use grounding to cope with nightmares. Nightmares can be a signal that traumatic experiences from the past continue to bother us in the present. It may be helpful to talk about your experiences with your counselor or in a therapy setting. When you are awakened from a nightmare, you can use grounding techniques to anchor yourself to the present and stop the pull to the past. This includes sitting with your feet on the floor, naming objects in your room, keeping a calendar by your bed, using soothing self-talk.

References

- Bastien, C. H., Morin, C. M., Oellet, M., France, C. B., & Bouchard, S. (2004). Cognitive-behavioral therapy for insomnia: Comparison of individual therapy, group therapy, and telephone consultations. *Journal of Consulting and Clinical Psychology*, 72, 653-659.
- Bastien, C. H., Vallieres, A., & Morin, C. M. (2001). Validation of the Insomnia Severity Index as an outcome measure for insomnia research. *Sleep Medicine*, *2*, 297-307.
- Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research*, 28, 193-213.
- Germain, A., Hall, M., Krakow, B., Shear, M.K., & Buysse, D.J. (2005). A brief Sleep Scale for Posttraumatic Stress Disorder: Pittsburgh Sleep Quality Index Addendum for PTSD. *Journal of Anxiety Disorders*, 19, 233 244.
- Hauri, P., & Linde, S. (1996). No more sleepless nights: Revised edition. NY: John Wiley & Sons.
- Kilpatrick, D. G., Resnick, H. S., & Freedy, J. R. (1998). Posttraumatic stress disorder field trial: Evaluation of the PTSD construct criteria A through E. In Widiger, T.A., & Frances, A.J., (Eds) DSM-IV Sourcebook. Washington DC: American Psychiatric Press.
- Krakow, B. J., Johnston, L. G., Melendrez, D. C., Hollifield, M. A., Warner, T. D., Chavez-Kennedy, D., & Herlan, M. J. (2001). An open-label trial of evidence-based cognitive behavior therapy for nightmares and insomnia in crime victims with PTSD. *American Journal of Psychiatry*, 158, 2043-2047.
- Krakow, B. J., Melendrez, D. C., Johnston, L. G., Clark, J. O., Santana, E. M., Warner, T. D., Hollifield, M. A., Schrader, R., Sisley, B. N., & Lee, S.A. (2002). Sleep dynamic therapy for Cerro Grande fire evacuees with posttraumatic stress symptoms: A preliminary report. *Journal of Clinical Psychiatry*, 63, 673 684.
- Morin, C. M. & Espie, C. A. (2003). *Insomnia: A Clinical Guide to Assessment and Treatment*. NY: Kluwer.

- National Institutes of Health. (2005). NIH State-of-the-Science Conference on Manifestations and Management of Chronic Insomnia in Adults: Draft Statement. Retrieved August 2, 2005, from http://consensus.nih.gov/2005/2005InsomniaSOS026htmlDRAFT.htm
- Perlis, M. L., & Lichstein, K. L. (2003). Treating Sleep Disorders: Principles and Practice of Behavioral Sleep Medicine. NY: Wiley.
- Schell, T. L., Marshall, G. N., & Jaycox, L. H. (2004). All symptoms are not created equal: the prominent role of hyperarousal in the natural course of posttraumatic psychological distress. *Journal of Abnormal Psychology*, 113, 189-197.
- VA National Center for PTSD. (n.d.). *Sleep and Posttraumatic Stress Disorder* (*PTSD*). Retrieved February 26, 2008, from http://www.ncptsd.va.gov.
- Weathers, F. W., & Ford, J. (1996). Psychometric properties of the PTSD Checklist (PCL-C, PCL-S, PCL-M, PCL-PR). In B. H. Stamm (Ed.), *Measurement of stress, trauma, and adaptation* (pp. 250-252). Lutherville, MD: Sidran Foundation & Press.